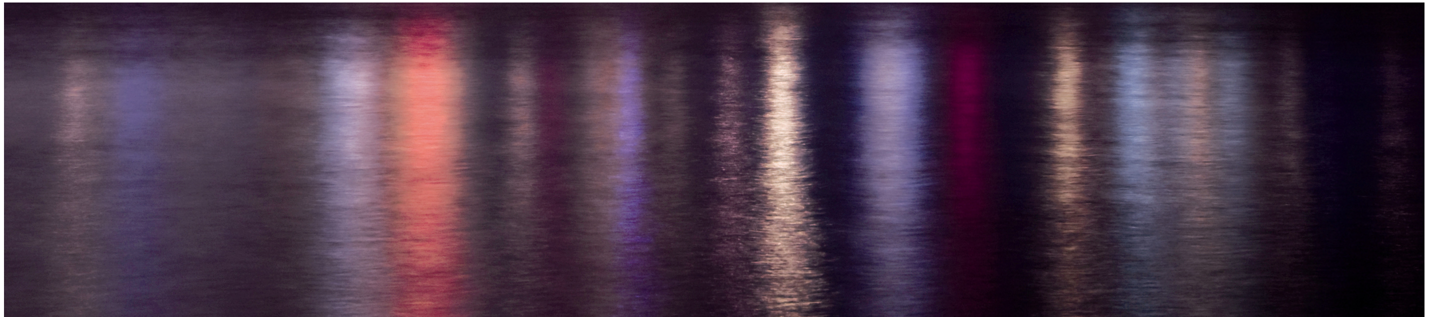
OECD Economic Surveys
BRAZIL

OCTOBER 2011

OVERVIEW



OECD

Summary

Since the mid-1990s, Brazil has enjoyed improved economic and financial stability largely owing to a strengthening of its macroeconomic framework. Social progress has also been impressive, with a marked fall in poverty and inequality. Increasing attention has been devoted to environmental sustainability. In order to quickly catch up with the group of high-income countries the overriding need is to achieve strong and sustainable growth. This will require continued good macroeconomic, social and environmental policies and structural reforms designed to boost savings and investment and foster infrastructure development. Higher international uncertainties and cross-country interdependence, rapid population ageing and a greater reliance on oil revenues will call for policymakers to expand their tool kit to respond to this challenge.

The key macroeconomic challenge is to damp inflation in a context of abundant global liquidity

The economy recovered rapidly from the 2008-09 global crisis thanks to a timely policy response. Annual growth in 2010 was the strongest in two decades. Driven by both structural factors and international financial conditions, the *real* has steadily appreciated since 2003, except during the 2008 financial crisis and more recently when a flight from risk in the midst of financial-market turbulence weakened it. Inflation pressures have emerged. To prevent excessive currency fluctuations and safeguard financial stability the authorities initially combined increases in interest rates and reserve requirements with foreign exchange intervention and a temporary tax on short-term capital inflows (IOF). As the global outlook worsened, the policy mix was shifted toward easier monetary policy and some fiscal consolidation. If that proves insufficient in the current uncertain environment, policymakers can have recourse to macro-prudential measures or adjusting the IOF. However, they should rely more prominently on fiscal consolidation. The spending cuts announced earlier this year and the setting of primary surplus targets for the next three years in levels consistent with public debt reduction in the draft 2012 Budget Law are welcome and the government should continue in this direction. Over the medium term, moving to a headline budget target and introducing an expenditure ceiling while removing widespread revenue earmarking would foster sustainability of government and social security accounts. Further progress in poverty reduction could be made by directing more resources to the successful *Bolsa Familia* cash transfer programme.

Removing obstacles to investment will be crucial to sustaining strong economic growth

A shortage of public and household saving appears to be a major barrier to higher investment rates. Parametric reforms to the pension system could restore its sustainability. Reduced expected pension benefits could also encourage people to save more during their working lives. Lower bank reserve requirements, the removal of directed lending obligations and a liberalisation of savings accounts would help to spur investment. Approval of the federal government's proposals to simplify the tax system would also strengthen investment incentives. The authorities have started to implement measures to develop private long-term capital markets. Levelling the playing field between private-sector banks and the national development bank and providing an explicit tax credit independent of the lending institution could further facilitate private entry in long-term financial markets. Once private lenders have entered the segment, subsidies could be phased out progressively.

© OECD 2011

Faster infrastructure development would help to achieve better economic and social performance

For Brazil, returns to investment in infrastructure are likely to be substantial, especially if designed with environmental benefits in mind. The government is implementing a second large infrastructure programme, which has been rightly protected from fiscal cutbacks. A stronger focus on its most worthwhile projects would facilitate implementation. Attracting sufficient private investment will require streamlining the public-private partnership framework. Despite progress, frequent disputes around infrastructure projects often slow the licensing process. This could be addressed by adopting rules for financial compensation for residents harmed by projects. It is in water and sanitation that needs are greatest. The formation of local consortia needs to be encouraged to reap available economies of scale.

© OECD 2011

Assessment and recommendations

The country has made a rapid recovery from the crisis

Brazil has achieved remarkable progress since the mid-1990s, largely owing to a strengthening of public institutions, in particular the inflation targeting framework coupled with exchange rate flexibility and the Fiscal Responsibility Law. Improvement in the social area has also been impressive, with a remarkable fall in poverty and inequality. Most product markets have been opened up, and labour market informality has receded. The country is now reaping the benefits of economic stability and increasing resilience, which, together with a timely macroeconomic policy response combining monetary easing, some fiscal stimulus and credit expansion, allowed Brazil to withstand the 2008-09 global financial crisis well. Real GDP growth of 7.5% in 2010 was the highest since 1986 and the fifth-best performance amongst the G20 countries (Table 1). This robust growth is estimated to have removed all remaining slack from the economy.

Over the next two years, real GDP growth is foreseen to slow to less than 4%, well below trend rates of around 4.5% per year. Domestic demand, spurred by strong investment, is likely to continue to sustain activity (Table 2). Inflation is projected to diminish gradually but to remain in the upper part of the target range of 2.5-6.5%. Risks surrounding this scenario are on the downside and good economic performance in Brazil remains contingent on a relatively benign scenario for the world economy.

Strong and inclusive growth will raise living standards

Robust economic growth and continued social progress will help Brazil to close its GDP per capita gap *vis-à-vis* OECD countries and join the ranks of high-income countries. There are several ways to boost output growth, while making it more inclusive and greener and thus more sustainable. Fostering productive investment will be crucial to achieving better economic outcomes. In particular, infrastructure development offers considerable potential to speed up growth and poverty reduction. Social and education policies can upgrade skills and raise long-term income gains. At the same time, sustaining high growth will require the authorities to persevere with their efforts to lower inequality and reduce greenhouse-gas emissions.

Over the next decade, greater reliance on oil resources and population ageing are going to modify the economic landscape. Oil production has been increasing steadily since 2003, but the discovery of massive oil reserves in offshore fields, known under the name pre-salt because the oil is located very deep underwater under a thick layer of salt, will place the country among the top ten countries in the world in terms of oil reserves. This will raise prosperity but also risks increasing tax revenue volatility and making fiscal policy more pro-cyclical. Although the fiscal framework is working well, it will need to be adjusted to adapt to this new environment.

© OECD 2011

Table 1. **Basic economic indicators**

Percentage change unless otherwise stated

	2000	2007	2008	2009	2010	Latest data in 2011[1]
Supply and demand						
GDP (current BRL billion)	1 179.5	2 661.3	3 031.9	3 185.1	3 675.0	4 087.0
GDP (current USD billion)	644.6	1 366.6	1 653.0	1 594.8	2 088.4	2 451.8
GDP per capita (current USD, PPP)	7 010.5	9 774.8	10 407.8	10 344.2	11 127.1	-
Real GDP	4.3	6.1	5.2	-0.6	7.5	3.1
Supply						
Agriculture	2.7	4.8	6.1	-4.6	6.5	-0.2
Industry	4.8	5.3	4.1	-6.4	10.1	0.9
Services	3.6	6.1	4.9	2.2	5.4	3.2
Demand						
Private consumption	4.0	6.1	5.7	4.2	7.0	3.9
Public consumption	-0.2	5.1	3.2	3.9	3.3	5.1
Gross fixed investment	5.0	13.9	13.6	-10.3	21.9	7.1
Exports	12.9	6.2	0.5	-10.2	11.5	9.6
Imports	10.8	19.9	15.4	-11.5	36.2	26.6
Public finances (public sector, in per cent of GDP)[2]						
Revenue	32.5	37.3	38.2	38.5	38.4	-
Primary balance	3.2	3.3	3.4	2.0	2.8	3.8
Headline balance	-3.4	-2.8	-2.0	-3.3	-2.6	-2.1
Net debt	45.5	45.5	38.5	42.8	40.2	39.2
Balance of payments (USD billions)						
Current account balance	-24.2	1.6	-28.2	-24.3	-47.4	-49.8
In per cent of GDP	-3.8	0.1	-1.7	-1.5	-2.3	-2.1
Trade balance	-0.7	40.0	24.8	25.3	20.2	28.6
International reserves (gross)	33.0	180.3	193.8	238.5	288.6	353.4
FDI (net inflows)	32.8	34.6	45.1	25.9	48.4	75.3
Outstanding external debt (in per cent of GDP)	33.7	14.1	12.0	12.4	12.2	-
Exchange rate and prices						
Exchange rate (BRL per USD, period average)	1.8	1.9	1.8	2.0	1.8	1.7
CPI inflation (IPCA, end-of-period)	6.0	4.5	5.9	4.3	5.9	7.3
GDP deflator	6.2	5.9	8.3	5.7	7.3	9.6
Labour market						
Unemployment rate (per cent)[3]	-	9.3	7.9	8.1	6.7	6.0

1. Data are for the latest available quarter or month. Data for the supply and demand blocks are for the first quarter of the year and annualised. Monthly CPI inflation is a year-on-year rate.
2. In 2000, includes *Petrobras* and *Eletrobrás*.
3. Refers to the Monthly Employment Survey (PME/IBGE).

Source: IBGE, Central Bank of Brazil, National Treasury.

Table 2. **Macroeconomic projections**

	2008	2009	2010	2011	2012	2013
Real GDP growth (per cent)	5.2	-0.7	7.5	3.6	3.5	4.0
Inflation (IPCA, end of period)	5.9	4.3	5.9	6.5	6.2	5.1
Fiscal balance (per cent of GDP)	-2.0	-3.3	-2.5	-2.7	-2.9	-2.8
Primary fiscal balance (per cent of GDP)	3.4	2.0	2.8	2.9	2.5	2.5
Current account balance (per cent of GDP)	-1.7	-1.4	-2.3	-2.1	-2.5	-2.7

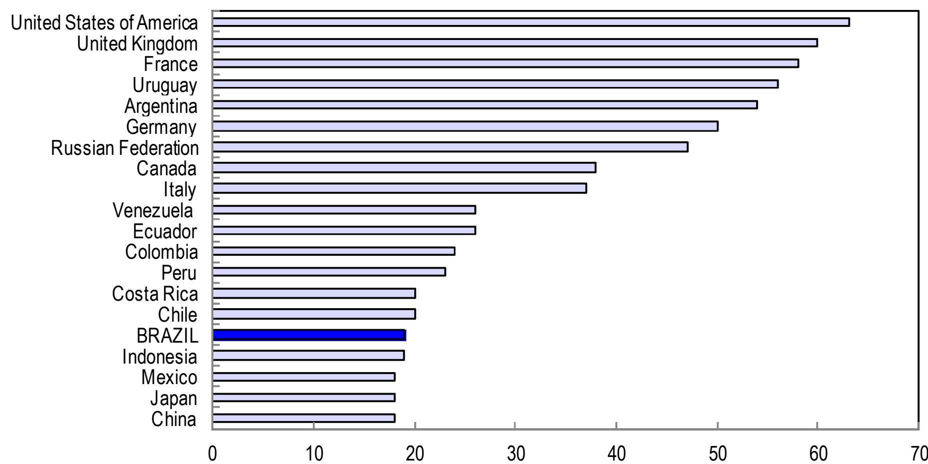
Source: OECD database (cut-off date: 12 October 2011).

© OECD 2011

Like many emerging-market economies, Brazil's population is going to age rapidly in the coming decade (Figure 1). The share of the elderly population is expected to double in less than 20 years, a transition that took around three times as long for today's advanced economies. These demographic changes will alter the macroeconomic environment. Assuming no policy changes, lower working-age population growth could lower potential output growth significantly by the middle of the century. This fall will most probably be partially compensated by the effect of the Growth Acceleration Programme (PAC) on productivity growth, but that impact is hard to estimate. Ageing is also likely to increase savings through life-cycle dynamics, although in Brazil's case prospects for aggregate savings will depend on the effectiveness of social and labour-market policies in continuing to lower the share of poor households, who traditionally save less. Ageing will also tilt public spending toward greater outlays on old-age pensions and health and long-term care and less on education, but the aggregate impact on public finance is likely to be negative.

Figure 1. **The speed of population ageing**

Number of years for the share of population 65+ to double from around 10% to around 20%



Note: United Nations population projections have been used. Numbers for France and the United Kingdom correspond to an increase from 12% to around 20%.

Source: OECD calculations.

The authorities should take the opportunity to reform institutions to these prospective developments while the nation still enjoys a favourable demographic dividend. International experience also suggests that it will take time to formulate and implement structural reforms. These changes will need to be undertaken in an increasingly complex and uncertain international context that will require countries to expand their tool kit to respond to new challenges.

Restraining inflation without attracting volatile capital inflows is still the top macroeconomic challenge

Current domestic and international economic conditions present a challenge to monetary policy. Policy makers are faced with the "impossible trinity" (maintaining monetary policy independence, with a stable exchange rate and free capital movements), as raising the policy rate to cool the economy risks attracting short-term capital, fuelling economic expansion and exerting upward pressure on the *real*.

High returns have attracted capital inflows

Since 2009, Brazil has experienced a massive surge in capital inflows, boosted by increasing direct and portfolio investment (particularly in the form of equity securities), which accounted for most of the volatility. Abundant global liquidity and a high interest-rate differential with developed economies have contributed to these patterns (IMF, 2010). Internal factors such as financial-market deepening, increases in GDP per capita and improvement in regulatory quality have also helped to attract foreign investors (Furceri *et al.*, 2011). Looking forward, further progress in financial development and income convergence are likely to continue to attract capital inflows.

Such flows, together with strong domestic demand, have fuelled credit and asset-price increases. After a few months of stabilisation in the aftermath of the global financial crisis, credit growth has regained its pre-crisis momentum. However, the largest increases have taken the form of subsidised credit to the housing sector and credit supplied by the national development bank (*Banco Nacional do Desenvolvimento Econômico e Social*, BNDES), rather than from commercial banks (see below). After having massively expanded its lending in response to the global crisis, BNDES has started to scale back its operations. Robust labour income and the gradual implementation of the social programme My House My Life (*Minha Casa Minha Vida*), which aims at building new dwellings for low-income families, have boosted credit growth to housing. Nevertheless, households' debts have built up at sky high rates of interest, even though they remain below their pre-crisis levels. Consumer default rates have risen, and write-offs are expected to trend higher. Housing prices have soared in some metropolitan regions, such as Rio de Janeiro and São Paulo, but construction costs and the housing component of the consumer price index have increased at only a moderate pace. Overall, the risks of an asset price bubble remain contained thus far.

Making extensive use of foreign saving is an appropriate strategy to finance Brazil's large investment needs. In particular, foreign direct investment (FDI) is widely seen to be a source of technology transfers, bringing direct and indirect productivity benefits for host countries (Arnold and Javorcik, 2009; Keller and Yeaple, 2009). It also allows risk diversification and can help to deepen financial markets (Kose *et al.*, 2009). By contrast, excessive short-term capital inflows can lead to disproportionate exchange-rate movements and risk-taking, generating financial-market instability.

The currency has appreciated, in part reflecting structural changes in the economy

The *real* has appreciated steadily since 2003, apart from a temporary dip during the global economic crisis and a recent depreciation stemming from turbulence in financial markets (Figure 2). Capital inflows have contributed to currency strengthening, but their effect has been somewhat compensated by the favourable productivity differential between Brazil and its trading partners. New evidence reported in this Survey also suggests that growing oil production has pushed up the equilibrium exchange rate. This phenomenon is expected to gain prominence in the future with the exploitation of the pre-salt fields. Nevertheless, the *real* appeared to be overvalued in 2010, though the extent of its misalignment is hard to measure. Empirical estimates point to an overvaluation of 3 to 20% in 2010, depending on the approach. While estimates based on a fundamental equilibrium exchange rate (FEER) method (whereby the equilibrium exchange rate is the rate consistent with domestic and external balances) point to little overvaluation, those based on behavioural methods that ascribe exchange rate movements to several factors including oil production and capital inflows suggest a more pronounced misalignment.

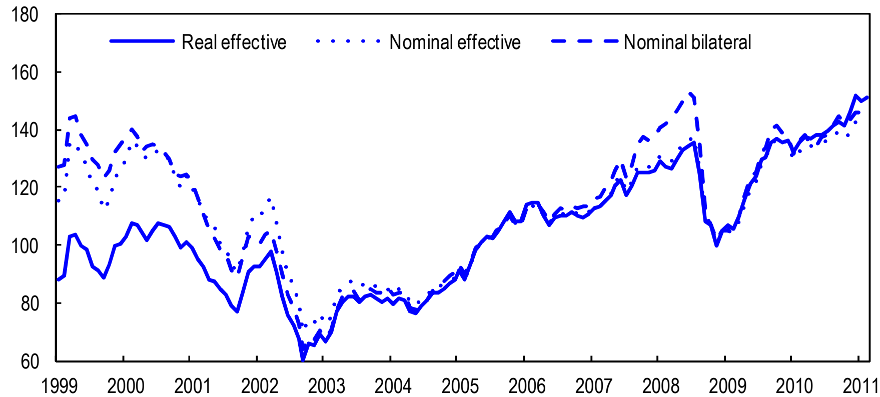
Thus far, however, there have been only limited signs that Brazil is starting to suffer from Dutch disease. The resource boom has generated significant wealth effects through sizeable increases in the terms of trade (Figure 3). Manufacturing production has declined but only in the aftermath of the financial crisis. Employment in the manufacturing sector has expanded, albeit at a slower pace than observed in the whole economy. Evidence is more conclusive on the trade side, as net exports of manufactures started to decline in 2005

© OECD 2011

while net exports of oil have continued to grow at a robust rate. But, other factors such as strengthening trade relationships between China and Brazil and Chinese and Asian competition in third markets may also explain some of these developments.

Figure 2. **Bilateral and effective exchange rate**

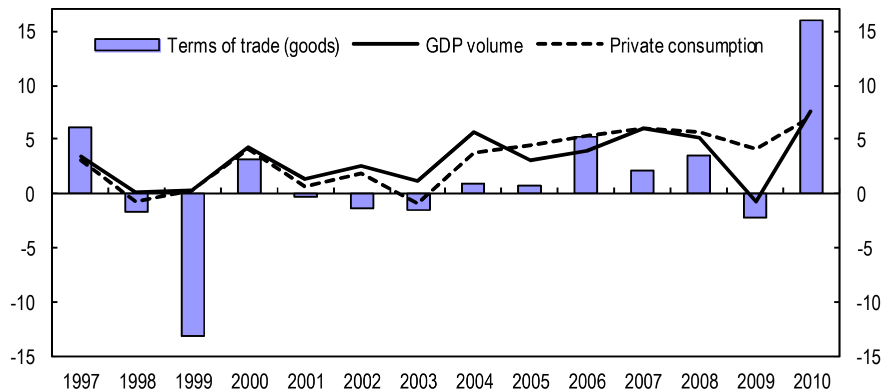
2005 = 100



Source: IFS and OECD calculations.

Figure 3. **Terms of trade, private consumption and GDP growth**

Per cent



Source: IBG and Funcex.

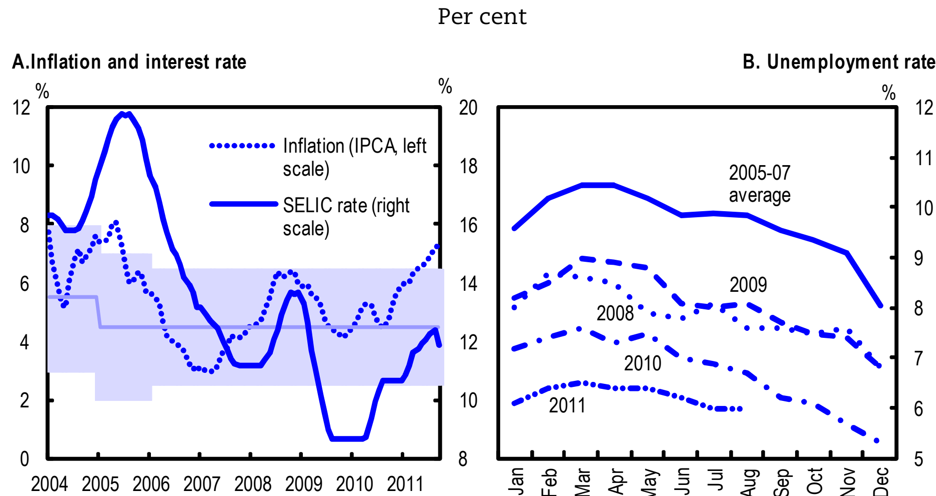
Inflation has temporarily moved up beyond the official target range

The rise in CPI inflation since late 2010 reflects a surge in food and beverages and energy components, but they have eased of late (Figure 4, Panel A). In the initial months of 2011, service prices experienced an upward trend, in particular for housing and transport. The currency appreciation has been tempering price increases since mid-2009, although financial turmoil exerted downward pressure on the currency in September. The positive output gap is also estimated to have allowed margins to expand somewhat. Inflation expectations have risen, and, given the carryover from late 2010, year-on-year inflation has surpassed the ceiling of the official monetary target since June. Inflationary tensions are

expected to persist over the next few quarters even if commodity prices stabilise, as assumed in the projection, as currency weakness fuels price increase. Labour markets have remained extremely tight (Figure 4, Panel B). The unemployment rate has fallen to a record low, as robust job creation in most sectors, especially construction and services, has more than offset the rise in the labour force. The minimum wage is set to increase by 13.6% in 2012. Productivity growth in the industrial sector has been picking up, and average earnings have also accelerated.

Figure 4. **Inflation and the unemployment rate**

Per cent



Note: The shaded area in Panel A is the monetary target corridor.
Source: Central Bank of Brazil and IBGE.

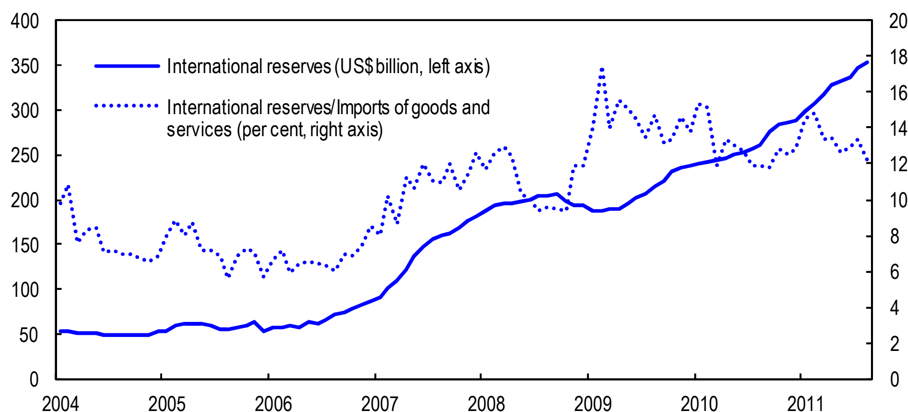
In this context, the Central Bank has relied on both changes in interest rates and macro-prudential measures. After having tightened commercial banks' reserve and capital requirements in December 2010 and lifted the interest rate by a total of 175 basis points since the beginning of 2011, the Central Bank eased the policy rate by 50 basis points to 12.0% in September in a context of increasing uncertainties on the global outlook. The Central Bank aims to achieve a gradual inflation convergence to the mid-point of the target range by end-2012.

In the current environment, it appears safe to use macro-prudential measures as a complement to traditional monetary tightening through increasing interest rates. The effectiveness of unconventional measures can be limited by financial innovation or regulatory arbitrage when transactions subject to prudential ratios are moved to unregulated entities. Although, the effect of unconventional measures may be less clear in shaping expectations about the policy stance because market players are more familiar with signals sent by interest-rate tightening, they are increasingly being used in the context of plentiful global liquidity.

The Brazilian authorities have combined foreign exchange market interventions and a tax on some forms of capital inflows to discourage a speculative bubble in financial markets and reduce the appreciation of the *real*. International reserves were found to be only moderately in excess of their estimated warranted levels before the 2008-09 global crisis (Vujanovic, 2011). But they have risen dramatically since then and exceeded 15% of 2010 GDP in the second quarter of 2011, though this remains a moderate level in comparison with other large emerging-market economies (Figure 5). Despite its benefits in terms of building up a safety net, this policy appears to be particularly costly for Brazil,

where the difference between what is paid by the Central Bank to commercial banks for draining their liquidity and the return on official reserves is large and the currency appreciation is likely to be in part a long-lasting phenomenon.

Figure 5. **International reserves**



Source: Central Bank of Brazil.

Accordingly, the government raised the rate of *Imposto sobre Operações Financeiras* (IOF) on foreign-income investment in October 2010 and made several adjustments to IOF in the months that followed. Although theoretical models show that it can be optimal to impose a tax on capital inflows under specific circumstances (Jeanne and Korinek, 2010), the empirical literature is much less conclusive, and it is difficult to estimate empirically the effects of the IOF tax on capital inflows. Nevertheless, past experience shows that capital controls have been successful in altering the composition of capital flows toward longer maturities. This seems to have been the case in Brazil. Portfolio investment, in particular in the form of equity securities, has been reduced considerably, while FDI remained broadly stable immediately after October 2010 and has even rebounded more recently. It remains to be seen whether this compositional effect stems entirely from the IOF tax and if it will persist over time. However, the increase in the IOF, if permanent, could distort resource allocation and lower the long-term attractiveness of investing in Brazil. It would thus be useful to remove existing restrictions on foreign and/or private equity in specific sectors such as fishing and transport, and also to reconsider recent legislative changes, whereby the state-owned oil company *Petrobras* is granted a minimum 30% equity stake in any production-sharing contracts to exploit offshore reserves. International cooperation on capital flows on the basis of conclusions agreed by both developed and emerging-market economies, could help to protect open capital markets and to reconcile their advantages with the need to cope with short-term instability.

In the current macroeconomic situation in Brazil and elsewhere, mitigating the risks related to short-term capital inflows will require an array of policy instruments. Policy should not attempt to offset the exchange-rate appreciation to the extent that it reflects structural changes in the economy that have raised the equilibrium value of the *real*. Doing so would be ineffective, only pushing the real appreciation into the inflation column, hampering necessary economic adjustment and inviting further destabilising capital inflows. The current policy combination of exchange-rate flexibility that followed the abandonment of the peg in January 1999 with an inflation target is still the best choice to avoid abrupt adjustments, such as those observed in the past. These policies can be usefully complemented by additional counter-cyclical fiscal measures, which will reduce pressures on domestic demand and on inflation. Raising public saving is thus a priority. Structural reforms to strengthen the macro-prudential framework would further enhance the

resilience of the economy to asset and credit bubbles. Short-term capital controls could also be used, especially if they manage to durably divert flows toward longer maturities. Over the medium term, measures to deepen financial markets would enlarge investment opportunities and allow capital inflows to be more easily assimilated and effectively utilised.

Refinement of the fiscal framework will help to improve public finances and sustain strong growth

Brazil strengthened its fiscal framework considerably with the adoption of the Fiscal Responsibility Law in 2000. The country has also enhanced the stability of its access to foreign capital and reduced exposure to exchange-rate shocks. Yet, changes to the framework could be beneficial to its growth prospects, without hampering its redistribution objectives.

Fiscal consolidation has started

Better policy institutions and prudent fiscal management has allowed the creation of a buffer that was used to cushion the 2008-09 downturn. However, public spending crept up in the second half of 2009 and during 2010, at a time when the recovery was well underway, fuelling already buoyant domestic demand. The fiscal impulse introduced during the crisis is being gradually reversed. In addition, the authorities announced a BRL 50 billion cut to the 2011 federal budget, corresponding to a cut in spending of about 0.5 percentage point of GDP compared to 2010 (after correcting for the recapitalisation of the state-owned oil enterprise, *Petrobras*). The announced budget cut is a first step toward fiscal consolidation, and available data for 2011 suggest the primary budget target is likely to be achieved. The government needs to keep moving in this direction. Lower budget financing needs would also help to ease inflationary pressures and avoid placing an excessive burden on monetary policy in the context of sizeable capital inflows and currency appreciation. In this sense, the government raised the surplus target for 2011 and, in the 2012 draft Budget Law, set primary surplus targets for the next three years at levels consistent with public debt reduction. One feature of that draft is the Greater Brazil Plan (*Plano Brasil Maior*), a package of measures aiming at boosting competitiveness in key tradable sectors These measures amount to a total of some BRL 21 billion (0.6% of GDP). If economic growth in 2012 turns out lower than the 5% officially assumed, the authorities may have to restrict spending to meet the fiscal target.

Given Brazil's needs, it is important to direct spending to those areas that will have the most beneficial effects on its long-term growth or will achieve its social objectives. The government plans to focus restraint on mandatory spending but safeguard social and some infrastructure programmes. Such choices seem warranted. Spending on infrastructure, can, if allocated to more efficient uses, boost potential growth in the medium term. Well targeted social spending will also be crucial to improving social equity, in particular if support focuses on measures to help the young (see below). A 2.5% per year ceiling on the real growth of the federal government payroll and other outlays, currently under discussion in Congress, and severing the link between the minimum pension and the minimum wage (while maintaining the value of the pension in real terms) would help to restrain spending.

© OECD 2011

Oil revenues should be shared equitably across generations and among regions

Revenue-sharing mechanisms should ensure that future generations get their fair share of oil revenues, as petroleum reserves are a finite resource. The Brazilian authorities set up a Social Fund (*Fundo Social do Pre Sal*) in December 2010 where some of the oil revenues are to be saved. Details regarding the specifics of the fund are still under discussion. Current plans suggest that the real returns on it will be spent on non-earmarked yet mostly education measures, although some will be allocated to a broader range of social and environmental areas. According to the law, spending from the fund will be directed to the most cost-effective programmes. The establishment of the Social Fund will help to achieve inter-generational equity. Its assets should be invested in a diversified portfolio that maximises returns and should therefore include foreign holdings. This will also mitigate the risk of Dutch Disease. At the same time, international experience suggests that erecting firewalls against political interference would reduce the risk that natural resource revenues are spent for short-term political gains. This could be done by delegating the management of the fund to an agency whose good governance should be ensured by clearly spelling out its objectives set in a democratic fashion.

The redistribution of oil revenues also needs to be equitable across regions. In draft legislation the authorities plan to share the non-saved proceeds of oil production from the pre-salt areas among all states and municipalities, including those that have no involvement in the oil industry. In order for these revenues to be well used, local governments should be encouraged to seek efficiency gains, as experience from the past in Brazil and elsewhere shows that oil windfalls have often resulted in increased spending without commensurate improvements in socio-economic outcomes. The federal government could strengthen incentives for efficiency enhancement by introducing rewards for good sub-national government performance.

Counter-cyclicality could be increased

The current fiscal framework is working well. The country has managed to reach its primary surplus target in most years, and the public debt-to-GDP ratio has been declining. Nevertheless, the framework will need to be adapted over the medium term to a new configuration in which oil windfalls will represent a large share of tax revenue and population ageing will weigh on public finances. The Brazilian authorities set up a Sovereign Wealth Fund (*Fundo Soberano do Brasil* – FSB) at end-2008, using fiscal resources, to be used as a counter-cyclical instrument. The fund also aims at smoothing exchange-rate volatility and promoting investment. However, no injection has been made to the fund since 2009, despite the strong economic performance in 2010, as priority was given to paying down the public debt and central government spending as a share of GDP also rose in 2010, due to the the fiscal stimulus being removed only gradually. Overall, as in many OECD countries, incentives embodied in the fiscal framework do not seem to be sufficient to put money aside during good times.

The fiscal target needs to be set in line with the long-term sustainability of government and social security accounts. At the moment, the target is defined in terms of the primary balance, which excludes interest payments. The target is expressed in levels and is binding for the first year, while targets (as a ratio of GDP) for the two following years are indicative. It was chosen at a time when securities paying floating interest rates and indexed to the exchange rate represented the bulk of traded public debt, and the net public debt-to-GDP ratio was extremely sensitive to interest- and exchange-rate changes. But improvements in debt management have lowered these vulnerabilities. Thus, although the current fiscal framework has been successful in reducing public debt, it would be beneficial over the medium term to switch to a fiscal target, expressed in terms of the headline fiscal balance and consistent with a long-term debt-to-GDP objective that reflects economic fundamentals and social preferences. The derivation of such a debt target and the associated fiscal balance path is fraught with difficulties, and the economic literature offers little specific guidance in this respect. Several options could be envisaged, such as maintaining nominal

© OECD 2011

debt constant or stabilising the debt-to-GDP ratio. In any case, transparency and simplicity are important features for the credibility of any framework.

To improve budget management, the government should phase out recourse to one-off revenues and contingency measures, which have undermined the balance target and the predictability of fiscal policy. Examples in the past include discounting some investment spending and using "savings" from previous years to meet official targets. The authorities have signalled they will not use these facilities for 2011 and 2012 and should adhere to this pledge. In addition, a combination of commitments to reverse slippages relative to deficit or debt targets or specific escape clauses in the event of unpredictable events could be put in place.

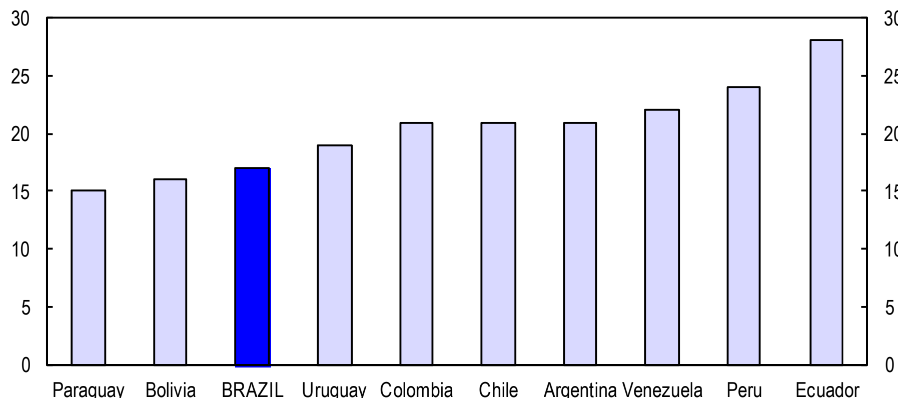
Within this fiscal framework, the introduction of an expenditure growth ceiling would strengthen fiscal control, as the experience of the Netherlands and Sweden has shown. A first step in this direction will be taken if the ceiling on public payroll spending growth is adopted. However, a precondition for an expenditure ceiling to be effective in the case of Brazil would be to substantially reduce widespread revenue earmarking, as was recommended in previous *OECD Economic Surveys*. Although earmarking was introduced in the Constitution to protect some items from cuts during periods of fiscal adjustment and make revenue streams more predictable for different jurisdictions, it has ended up preventing the reallocation of budget appropriations toward more beneficial uses and discouraging efficiency gains through cost-cutting measures. A phasing out of revenue earmarking would enhance budget flexibility.

Higher investment rates would allow faster long-term growth

Faster capital accumulation will help to counteract the impact of population ageing on potential output growth. At the moment, investment rates appear to be low by emerging-market standards, despite a slight improvement since 2000, mostly reflecting developments in the energy sector (Figure 6). In the aftermath of the global financial crisis, capital accumulation and a pick-up in total factor productivity has contributed to faster potential output growth. Further reforms will be needed for these trends to be sustained much less accelerate. In addition to those reforms, further improvements in human capital would also enhance incentives to invest.

Figure 6. **Investment rates in Latin American countries**

Per cent of GDP, 2009



Source: World Bank.

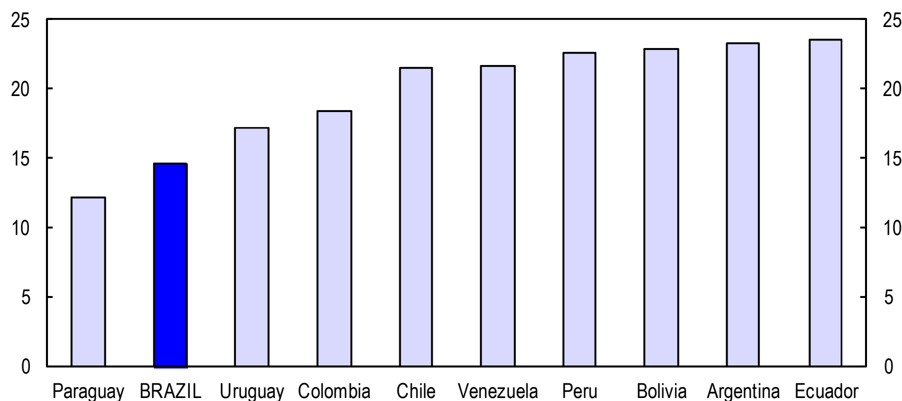
© OECD 2011

Reforming the pension system would support saving and investment

Insufficient domestic saving appears to be one of the most important restraints on investment. Brazil's national saving rate is lower than that observed in most other Latin American countries (Figure 7). Corporate saving already accounts for 90% of national saving, and there is little scope for boosting it much further. By contrast, there is ample room to raise public and, to a lesser degree, household saving. Parametric reforms to Brazil's pension system could increase households' incentives to save for retirement and help to restore the sustainability of the system. Pension-related expenditure is currently around 9% of GDP but is expected to rise when the effects of population ageing start to kick in, adding to pressures from increasing public health spending. A specificity of the Brazilian system is that minimum pension benefits are indexed to the minimum wage, which has risen rapidly over the last decade. To contain pension costs, it would be preferable to index minimum pension benefits to an average of consumer price inflation and wage increases, as for instance in Switzerland. Sustainability could be further enhanced by indexing minimum pension benefits only to consumer prices over a transition period. In addition, fixing a minimum retirement age, possibly 65, which is currently under discussion within the government, or number of years of contribution, say 40, and removing the distinction based on gender, would bring Brazil's pension system more into line with current practice in OECD countries and other emerging market economies. This, together with higher pension penalties for early retirement, would also help to bring the effective retirement age up. In the future, the retirement age could be linked to rising life expectancy so as to make adjustment automatic and thereby avoid using up political capital in a routine reform process. Such changes should be implemented gradually to avoid disruptive costs and increase public acceptance. Changes in federal civil servants' social security, proposed by the federal government, have been under discussion since 2003 in the National Congress. They would introduce a ceiling on the pensions of new civil servants and establish a complementary pension fund to which both the employer and the employee would contribute. These measures, if implemented, would be likely to increase household savings and reduce the burden of civil servant pensions on the social security budget in the long run.

Figure 7. **Gross national saving in Latin American countries**

Per cent of GDP, 2009

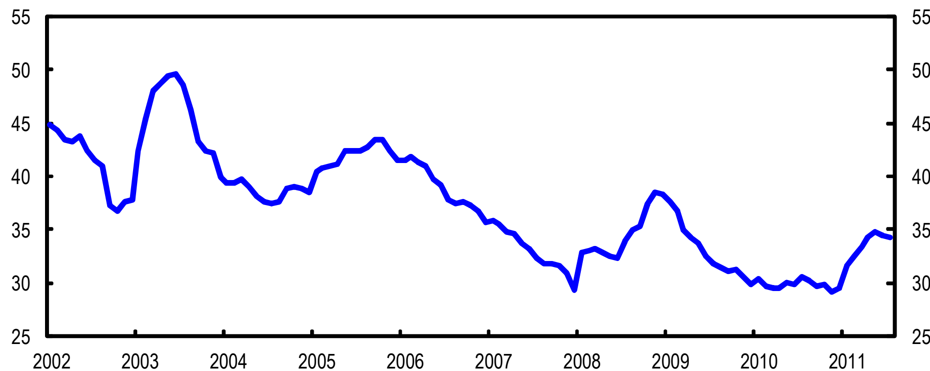


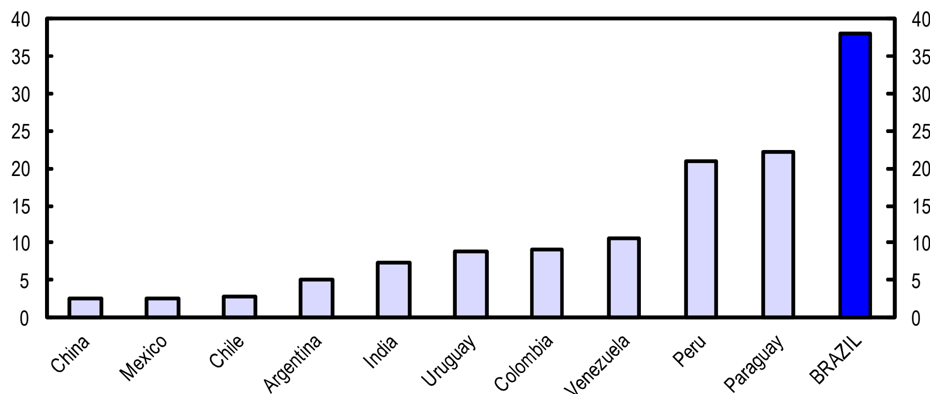
Source: World Bank.

Lower interest rates will foster investment

Real interest rates have declined markedly in Brazil, but remain extremely high by international standards (Figure 8). Corporate borrowers in Brazil paid an average annual nominal interest rate of 31% in March 2011, while personal loans were charged at an average rate of 45%. Beyond the scarcity of domestic saving as one candidate explanation, a comprehensive picture of the underlying factors behind these record levels is still missing. Nevertheless, addressing some of the issues that have been identified is likely to reduce lending rates and thereby support higher levels of investment.

Figure 8. **Real interest rates facing borrowers**





Note: Real Interest rate is the average interest rate charged on credit contract for individual and corporate borrowers, adjusted for 12-months ahead inflation expectations (IPCA) in Panel A and the GDP deflator in Panel B.
Source: Central Bank of Brazil, World Bank.

History is clearly one reason behind the high level of interest rates, but other countries have managed to put behind them a turbulent economic past and achieve much lower rates. Although many market participants will remember hyperinflation and public debt defaults from the past, Brazil has enjoyed a decade of successful inflation targeting and primary fiscal surpluses, and the problems of the more distant past should not play a major role in forming expectations today. Another explanation can be linked to market perceptions of the government's ability to rein in or reduce the level of current public

© OECD 2011

expenditures, and the interest rate might be reduced by further improving market confidence in the country's fiscal prospects. Indeed, the primary surpluses in recent years have been achieved mostly through increases in the tax burden rather than spending restraint, and that the debt reductions of the last decade have been more a result of GDP growth than fiscal effort (FUNDAP, 2011). Another factor that contributed to the debt reduction was the lower level of real interest rate in the period, which also contributed to the decline of the ratio of public debt to GDP. Exchange-rate risks, which had played a role for Brazil's public debt in the past, have been eliminated, and Brazil is now a net creditor in foreign currency. Parametric reforms to the pension system, as mentioned above, would certainly send a useful signal and help to raise market confidence by reducing the future burden on public finances stemming from social security.

Lower intermediation spreads would reduce the cost of capital

Financial markets in Brazil are largely bank-based. Banks' intermediation spreads are elevated by international standards, adding to the cost of capital and creating a bias toward short-term high-risk investment, instead of the long-maturity investment that the country needs. High borrowing costs are particularly onerous for small and medium-sized firms whose access to foreign finance is limited. Although there is no agreement on the reasons behind these high spreads, a number of explanatory factors can be put forward:

- The high Central Bank's official interest rate, the Selic rate, which is a reasonable proxy for bank funding costs, is probably one of the major reasons why interest margins are so high in Brazil, and the two series are strongly correlated.

- Compulsory bank reserves are extremely high by international standards (up to 43% for demand deposits) and are either not remunerated at all or only at below-market rates. They are found to have a bearing on the interest spread between lending and borrowing rates and on credit volumes (Souza Rodrigues and Takeda, 2005; Montoro and Moreno, 2011; Mesquita and Toros, 2010). Although compulsory bank reserves may be helpful from a financial stability perspective, lowering the level of reserve requirements for banks would reduce the level of implicit taxation of financial intermediation and the cost of capital.

- The banking sector is also heavily taxed, and this adds to its costs. In addition to the high level of taxes on corporations, the banks are also subject to additional taxes. The pass-through of taxes on banks into lending rates is found to be almost complete, implying that these taxes are ultimately borne by borrowers (Cardoso, 2003). In this context aligning taxation of financial institutions to treatment applied to the rest of the economy would reduce intermediation spreads and spur higher levels of investment.

- Directed credit operations with regulated interest rates to priority sectors including rural credit and housing (which together account for around 13% of credit volumes), and price regulation on savings accounts may also contribute to high spreads on non-preferred lending. These schemes are costly to administer and lead to cross-subsidisation, whereby banks charge higher prices on non-regulated lending operations. In addition, extensive intervention in financial markets distorts both relative prices and credit allocation economy-wide. Directed lending schemes that commit banks' resources need to be phased out. During an inevitable transition period, remaining credit subsidies implicit in these schemes should be financed on a broader tax base, such as through general taxation. This would be less distortive than the current approach of earmarking a fixed share of deposits to these schemes, which results in only the financial sector bearing the costs.

© OECD 2011

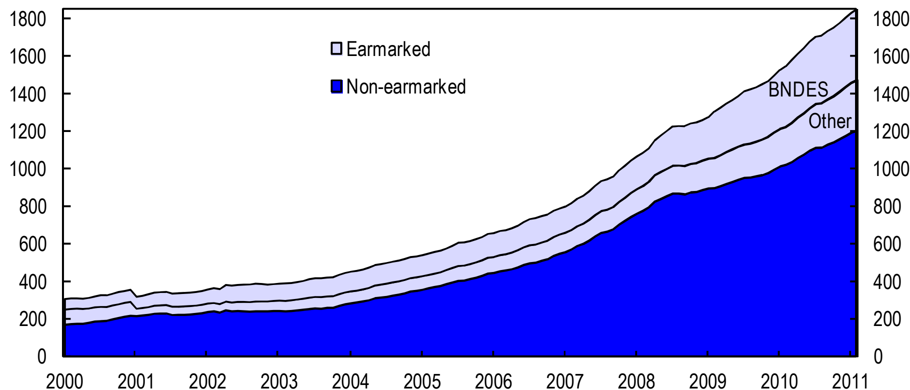
Without the development of long-term capital markets investment financing will remain stunted

The national development bank (BNDES) was originally created to resolve a market failure and has been helpful so far, as private lenders were unable to provide long-term financing. It is financed through compulsory saving via the workers' tax fund (FAT) and public transfers and supplies credit for long-term investment projects, at rates considerably below the short-term borrowing costs of the government. The volume of BNDES financing has recently increased rapidly in response to the 2008-09 global financial crisis (Figure 9). This liquidity injection was helpful in avoiding a credit crunch during the crisis but risks becoming an obstacle to private entry into this market segment now that the situation has normalised. BNDES has now appropriately started to withdraw from the provision of short-term working capital for firms.

Satisfying Brazil's financing needs as the country develops will require increasing private-sector participation in the long-term credit market, beyond acting merely as distributors of smaller BNDES loans. However, in the current context where most financial assets are short-term, private banks themselves are finding it difficult to get access to long-term financing. A way to facilitate banks' access to long-term funding is to lift current restrictions on savings accounts, in particular related to their uniform remuneration and maturity and the directed credit obligations that are attached to them. In addition, fostering the development of long-term capital markets would allow banks to get long-term bond financing. Accordingly, the authorities started to implement a range of measures in December 2010, including an authorisation to create a liquidity fund aimed at increasing trading volumes of private bonds on secondary markets. The government also phased out restrictions on banks' direct marketing of long-term bonds (*letras financeiras)* to the general public and created tax incentives for investing in longer-maturity assets and trading such assets. Finally, BNDES has bought and issued long-term bonds that are not indexed to overnight interest rates with the aim of creating a market for such securities. These are welcome and promising initiatives that leverage BNDES' strong potential as a market maker.

Figure 9. **Earmarked and non-earmarked credit flows**

BRL billions



Source: Central Bank of Brazil.

However, even when the funding difficulties for private banks and the resulting maturity mismatch are solved, BNDES' unique access to comparatively cheap funding will hamper private supply of long-term credit. In a likely scenario, private banks' funding costs would be above BNDES' current lending rates. Private participants' entry into long-term

financial markets could be facilitated by aligning private banks' funding costs with those of BNDES and providing an explicit tax credit for borrowers that would be independent of the choice of lender. In a second step, this tax credit could be phased out once private lenders have established a sufficient presence in this market, in order to avoid any abrupt reduction in credit supply.

A lower tax burden would also encourage investment

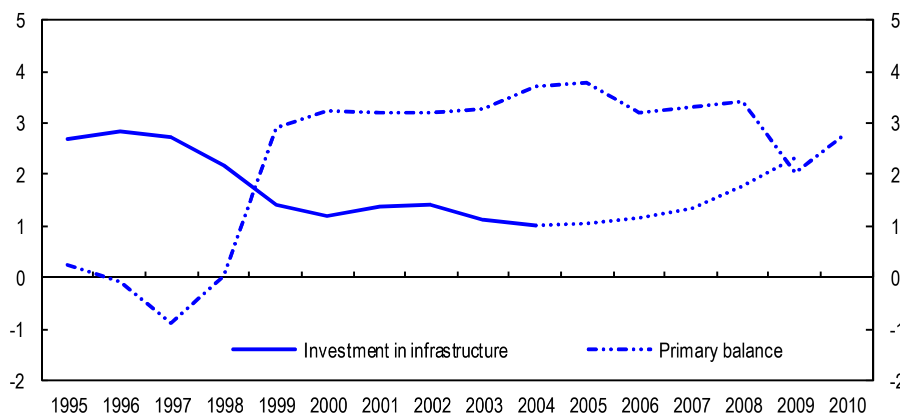
High levels of taxes by the standards of emerging-market economies, together with a complex and fragmented system, reduce after-tax returns and curb incentives to invest. Value-added taxes (ICMS), imposed at the state level, are assessed on an origin basis, adding enormously to compliance costs. In addition, these taxes are levied on enterprise turnover rather than value added in some sectors, which distorts firm decisions on internalisation and the organisation of the production chain. The government plans to try once again to rationalise the tax system. It intends to send a proposal to Congress to introduce some payroll tax relief and unify states' rate of VAT. State finance ministries have recently discussed a gradual harmonisation of interstate ICMS rates at 4% by 2012. The tax package proposal also envisages a consistent refunding of tax claims resulting from exports and investment. Currently, these refund claims are not always honoured or paid only with long delays. These recommendations are in line with what was suggested in the OECD's latest *Going for Growth* publication (OECD, 2011) and the last *Economic Survey* (OECD, 2009), which examines the tax system in more details. The government should follow through with the proposed reform package. Further improvements could be achieved by combining existing VATs with municipal taxes on selected services, the tax on industrial products and various federal contributions into a single value-added tax with full credit for exports and capital goods and intermediates purchases, and by a consistent choice of value added rather turnover as the tax base. If differences in tax rates across states are retained, taxes should be determined on a destination basis to avoid distortions in interstate trade and reduce the incentives for predatory tax wars among states. Budget permitting, investment incentives could be strengthened by raising depreciation allowances for corporate income taxes. Finally, it would be preferable to compensate currently envisaged decreases in states' VAT by commensurate increases in federal VAT, as consumption has been found to be one of the more growth-friendly bases for taxation in cross-countries analysis (Arnold *et al.*, 2011).

Greater investment in infrastructure would improve economic performance and social development

For Brazil, investment in infrastructure, if well designed, is likely to have high economic and social pay-offs. A lack of investment spending in Brazil has resulted in inadequate infrastructure provision. According to Morgan Stanley (2010), Brazil would need to invest about 4% of GDP per year over 20 years to catch up to the infrastructure levels of Chile, the infrastructure leader in South America. Since the late 1990s, private-sector participation has not offset the decline in public spending resulting from pressures for fiscal consolidation (Figure 10).

Figure 10. **Primary surplus and public infrastructure investment**

Per cent of GDP



Note: Sectors covered include transport, sanitation, communications and electricity. Given the lack of official data, total government investment in infrastructure has been extrapolated using data on federal investment in infrastructure after 2005.

Source: Afonso *et al.* (2005), IPEA (2010) and OECD calculations.

The Growth Acceleration programme (PAC) is a laudable initiative

Infrastructure development is therefore one of the main priorities on the government's policy agenda. It launched a large infrastructure programme in 2007, followed in 2010 by a second programme. The first stage met with positive outcomes. Despite some delays in project delivery and spending execution at the start, infrastructure outlays by the federal government and SOEs rose markedly to reach an estimated 3.2% of GDP in 2010. The programme helped to build up expertise and capacity at the central and local levels. Planned investment spending for the second stage (excluding oil and gas and housing) is estimated to reach BRL 394.9 billion over the next four years, representing an average of around 2.7% of 2010 GDP per year, with most investments expected in the electricity sector. The federal government also finances additional infrastructure programmes that are not included in PAC. It should continue to preserve PAC infrastructure spending related to network industries from budget cuts. PAC also increases spending on Operation and Maintenance (O&M) to rehabilitate the existing infrastructure stock. O&M expenditure has already been separated from other outlays in sectors such as railways, and a similar separation is planned in others. In addition, O&M costs are used as a criterion in PAC project selection. The government should go even further by setting specific rules to quantify the yearly O&M costs of existing and planned infrastructure and incorporating them in multi-year budgets. This will facilitate planning and help to protect O&M spending from budget cuts.

In 2005, the pilot programme that preceded PAC selected projects whose pay-offs were the highest, but given the state of infrastructure in Brazil, the coverage of PAC has since been expanded. The programme now includes a very wide range of projects, covering several aspects of infrastructure, but also social developments, and it involves many actors. In this context, increasing amounts of resources have been devoted to monitoring project implementation. In addition, the government focuses in its PAC reports on large or strategically important projects. Priority should be given to completing the most worthwhile projects within PAC. In early 2011, PAC management was transferred to the Ministry of Planning, which took charge of coordination. It will be useful to monitor whether this institutional change will overcome the coordination challenges.

© OECD 2011

In order to minimise PAC's budgetary cost, the government has sought to promote private participation in infrastructure projects. Historically, private participation in Brazil has mostly taken the form of concessions, which have been awarded for those projects that are financially viable without any public payment to the private operator. In 2004, the government put in place a legal framework to manage the use of Public Private Partnerships (PPPs) for projects requiring public subsidies to be financially viable. The law is well designed, improves transparency and is expected to limit excessive contract renegotiations, which have marred private participation in Latin America in the past (Calderón and Servén, 2010). But so far the programme has failed to generate the expected increase in the number of PPP projects, partly reflecting the very cautious approach chosen by the government. In this regard, the decision to make more use of PPPs, in particular in the road sector, is a step in the right direction. Slow take up may also be explained by the cumbersome process of project selection and evaluation, which involves many agencies and ministries. Improving the business environment is the first choice to attract further private investment in infrastructure sectors, but this may take time to materialise. There is also scope to streamline the selection process of infrastructure projects, while continuing to scrutinise project viability through rigorous value-for-money exercises. Consolidating responsibilities among the numerous institutions involved is also likely to speed up the process.

Environment licensing should be streamlined

Even though there has been some improvement of late, environmental licensing remains a significant source of investment delays, especially in the energy sector, because of the frequency of disputes around infrastructure projects. Brazil is one of the very few countries that employs a three-stage licensing process (involving Preliminary, Installation and Operating Licenses), with separate procedures and opportunities for third parties to initiate a dispute at all three stages. This approach has resulted in uncertainty, lengthy delays and high transaction costs. In 2005, a timeline for each step was established, with the main objective of reducing the time spent during the first phase. Further progress could be achieved by adopting comprehensive rules for financial compensation for residents affected by projects, and the authorities are currently working on this issue. In addition to increasing predictability, this would also speed up the process and lower the likelihood of challenges.

Barriers to investment in certain network sectors should be lifted

In different network industries, the country has undertaken several reforms over the past two decades to improve access. Efforts should be pursued to remove the remaining obstacles to investment.

Water and sanitation is the sector where investments are probably the most needed. The situation is particularly critical for sewerage, as only 47% of the population – concentrated in the South-Southeast region – benefit from sewage collection, and approximately 20% of collected sewage is treated. Service coverage varies widely across municipalities, which are responsible for provision. One reason for the lack of investment in the sector is the high level of debt of certain municipalities. To address this issue, the federal government can provide special loans to help municipalities in financial difficulty and has been doing so. The federal government could envisage making such loans conditional on reforming service providers' structures and making their operations financially viable, for instance by forming a consortium of municipalities to set up a single water supplier. This may provide the right incentives to exploit available scale economies.

The most important challenge in the electricity sector lies in raising generation capacity to meet the rapidly expanding demand in the coming years. Diversifying generation sources and making marginal prices for electricity more responsive to demand, as currently planned by the authorities, will help. The authorities should also look into the possibility of cross-subsidisation in the power sector and, depending on the results of the investigation,

© OECD 2011

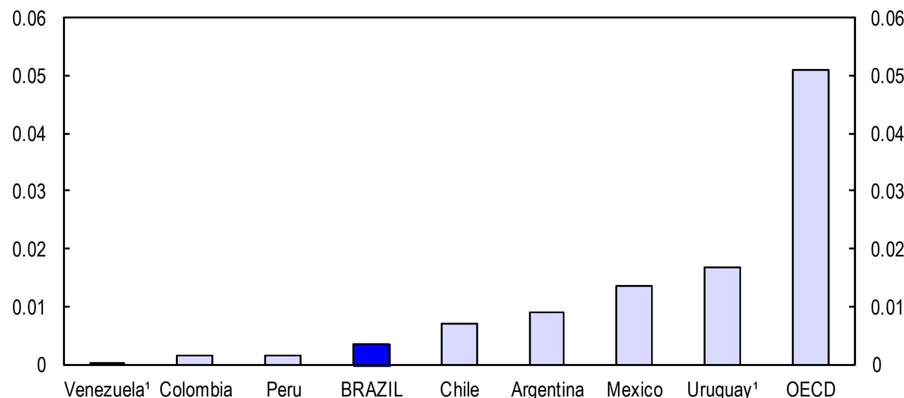
prohibit distribution and generation firms from belonging to the same group. Given the dominant role played by the state-owned company, *Eletrobrás*, it would also be useful to explore whether there is room to open up competition in the generation segment. Social tariffs that facilitate access for low-income households can distort investment decisions and lead to cross-subsidisation across customers, with prices for high-volume customers being above cost-recovery levels and, in the case of firms, hampering their competitiveness. A more cost-effective way to support such households would be to make greater use of existing cash transfer schemes, which target the poor.

Turning to other network industries, there is still room to inject further competition into the market for fixed telephony, as firms enjoy monopoly positions in their concession areas by having full control over the use of their infrastructure network. At present, the sector is separated into two regimes. In the "public" regime, firms are required to achieve universal service targets, comply with price caps and fulfil universal service obligations and accounting separation. There is usually one dominant player per state, and the regime is restricted to the fixed-line segment. This regime is set to expire by 2025 and should be reviewed by 2015. Under the "private" regime, firms operate under minimum intervention from the government, and prices are free. The authorities should take the opportunity of the 2015 deadline to review the costs and benefits of maintaining the current dual system, given the difficulty of injecting competition in market segments under concessions. If it is found useful to maintain the two regimes, the authorities should lower entry barriers and issue regulations that clarify the conditions under which a competitor can rent existing fixed-line infrastructure. Furthermore, the current regulatory framework seems ill-suited to deal with the process of telecommunications and broadcasting service convergence. The authorities should coordinate the regulatory settings of the communication and broadcasting sectors better to meet the requirements of service convergence. Such a strategy could prepare the sector for moving to a single telecommunications/broadcasting licence, which is likely to spur competition in different service markets, allow operators to reap economies of scope and increase the variety of services offered and thus consumers' welfare.

The Brazilian rail and road networks are underdeveloped (Figure 11). The decision to increase public investment in railways in a context of fiscal consolidation is welcome, given the long-term pay-off associated with this type of investment. The authorities should

Figure 11. **Rail lines**

Total route-km over km^2 of land area, 2009



1. 2008.

Source: World Bank (World Development Indicators).

continue to protect investment in railways from budget cuts. Regarding roads, spelling out precise investment targets in concession contracts would encourage concessionaires to extend and improve the network over the entire life of the concession and not just to rehabilitate it, as is currently the case.

Other measures to achieve a sustainable rise in living standards

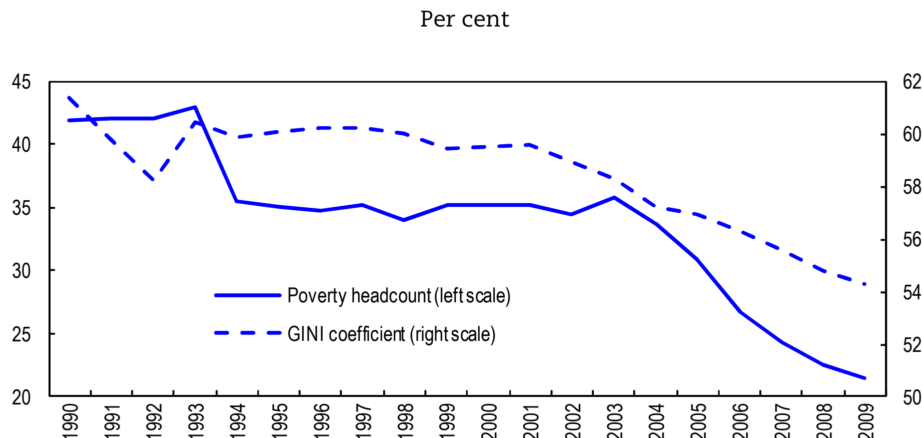
Two pre-requisites to make strong economic growth sustainable are to spread its benefits widely and to ensure that the development path is consistent with the protection of the environment.

Maintaining the momentum of poverty reduction is a high priority

The fight against extreme poverty has been put at the forefront of the government policy agenda. Since 1993, Brazil has experienced a sharp and continuous decline in inequality, reflecting good labour-market performance and successful redistribution policy (Figure 12). The poverty rate has declined by half. This remarkable progress must be continued to further reduce the still high levels of inequality and poverty. Further required action will involve an extension in scale and scope of the highly efficient conditional cash transfer programme *Bolsa Familia*, which has managed to relieve poverty at relatively low fiscal cost. The programme reached 12.7 million households in 2010 and cost 0.4% of GDP, whereas 11% of GDP was spent on social security benefits, most of which go to the middle class (Abrahão de Castro and Modesto, 2010). A noteworthy achievement of *Bolsa Familia* has been to set up an almost exhaustive registry of poor households in the country, which could be used to improve the targeting of other social policies, as planned in the recently launched government programme *Brasil sem Miseria*. These additional services could include care for children and elderly household members, training or loans, and would help to overcome poor families' informational barriers with respect to the social policies already on offer.

Figure 12. **Poverty and income distribution**

Per cent



Note: Poverty headcount refers to the number of persons below the poverty line, in per cent of total population.
Source: IPEA (IPEADATA).

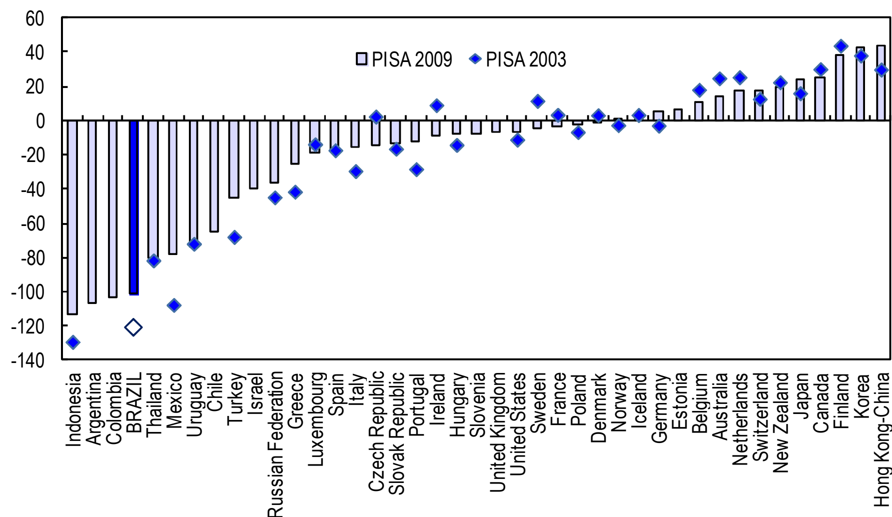
Although current transfer schemes have succeeded in reducing poverty rates among the elderly, considerable scope for improvement remains with respect to reducing poverty rates among youths. Recent years have seen substantial increases in the minimum wage, whose adjustment is linked to the sum of the real GDP growth of the year before last and CPI

inflation. Still, minimum-wage increases fail to reach the neediest and are thus less effective in reducing poverty, and even more so extreme poverty, than *Bolsa Familia* transfers. In addition, a number of measures in the pension system do not appear to be cost-effective in fighting against poverty and would best be scaled back. These include granting a survivor pension to beneficiaries who already receives their own pension or providing additional free services to pension recipients through the Elderly Statute. By contrast, additional resources to enhance *Bolsa Familia* are warranted, given the major progress in reducing poverty achieved through this programme.

Education will help to build on recent successes in poverty reduction

Access to education has improved markedly in recent decades, and, as a result the traditionally very high wage premiums for education have come down. This, and the more even distribution of educational attainment, have been the main drivers of the reductions in inequality, accounting for more of the observed changes than social transfers (Barros *et al.*, 2010). Still, some challenges in the area of education remain, including the need to improve the quality of instruction and to reduce the high drop-out rates in secondary education. According to the OECD Programme for International Student Assessment (PISA), student performance in Brazil has improved in all subjects measured but remains significantly below the OECD country average (Figure 13). The continued willingness to measure, evaluate and benchmark school performance as well as lengthening school days will be paramount to ensuring quality improvements going forward, a goal that is underlined in the National Plan for Education 2011-2020. High drop-out rates, resulting in high-school enrolment of only about 70% of a given cohort, may be related to the inability of a one-size-fits-all education system to provide attractive options to some youths from disadvantaged backgrounds. The laudable *Pronatec* initiative, launched in April 2011, facilitates the access of the unemployed and beneficiaries of *Bolsa Familia* to technical schools. However, some of these measures are only available to graduates from the regular secondary curriculum, a condition that may place them out of reach for groups with a strong propensity to quit school. Enhancing technical education and labour training regardless of successful graduation from the regular curriculum will be important for up-scaling skills of disadvantaged students.

Figure 13. **PISA scores on reading and mathematics**



Note: Deviation in levels from the 500 OECD mean of the test. Average of scores in reading and in mathematics.
Source: OECD.

Continuing to protect forestry is key to achieve sustainable growth

Finally, growth will be sustainable in the longer run only if it is not at the expense of environmental degradation. Brazil has a crucial role to play globally, not only because it may be particularly vulnerable to climate change but also because of its importance as guardian of so much of the world's forest cover and of biodiversity. Accordingly, the authorities have been active in climate-change debates both at the international level and domestically. A National Climate Change Policy was established just a few days after the 2009 United Nation Copenhagen Conference and set a national reduction target of between 36.1% and 38.9% compared to a business-as–usual scenario of projected greenhouse-gas emissions by 2020. Public action has focused on curtailing deforestation, which accounts for almost half of Brazil's emissions, most of it in the form of illegal logging. As a result, deforestation rates in the Amazon declined from 18 200 km^2 on average per year between 2000 and 2008 to 6 500 km^2 in 2010. The country is on track to achieve its emissions-reduction targets four years before the deadline. But progress has been uneven across regions. The authorities should persevere with their efforts. First, better enforcement of existing law could be achieved by increasing monitoring and controlling compliance in forestry. Second, further developing job opportunities and social protection in regions where the local economy depends on deforestation could lower the attractiveness of illegal logging. Third, the authorities should resist changes to the Forest Code, which currently limits deforestation in some areas on sound environmental grounds. Such changes could reverse the downward trend in deforestation rates observed over the last decade. PAC offers the Brazilian authorities an opportunity to introduce greener infrastructure and to improve the resilience of infrastructure to climate change. Given the potential high co-benefits of green investments, the authorities should ensure that investment decisions appropriately account for environment-related externalities in project selection within PAC.

Summary of recommendations

Box 1. **Summary of policy recommendations for Brazil**

Stabilisation policies

- Minimise the risks posed by abundant volatile capital flows primarily by increasing public saving through fiscal consolidation. If needed, this could be complemented by macro-prudential policies and a temporary tax on short-term capital flows such as the IOF. Measures to deepen long-term capital markets will also be useful but will have only an impact in the medium term. Restrain policy action to smooth fluctuations of the currency only when they are excessive, and do not try to prevent currency adjustments reflecting changes in economic fundamentals.
- Continue fiscal consolidation. Over the medium term, move from a primary to a headline budget target with a net debt endpoint. Remove existing recourse to one-off revenues and contingency measures to achieve the fiscal target. Introduce a public expenditure ceiling. Phase out existing revenue-earmarking requirements and aggregate spending floors.
- Maximise investment returns from the Social Fund by directing it to hold a diversified portfolio of assets, including foreign assets (to mitigate Dutch disease effects). Delegate the management of the fund to an agency whose good governance is ensured by clearly spelling out its objectives set in a democratic fashion.

Saving and investment

- Introduce a general minimum retirement age, with no distinction based on gender. Increase pension penalties for early retirement. Going forward, link the minimum retirement age to rising life expectancy. Index increases in minimum pension benefits to the average of consumer price inflation and wage increases, rather than changes in the minimum wage.
- Create a single value added tax with full credit for exports and capital goods and intermediates purchases.
- Gradually reduce reserve requirements for financial institutions in the medium term. Remove other forms of excess taxation of financial institutions.
- Align private banks' funding costs to those of the national development bank and provide an explicit business tax credit that would be independent of the choice of lender, and, in a second stage, phase out such tax credits. Phase out directed lending schemes to the rural sector and to housing.

© OECD 2011

Box 1. **Summary of policy recommendations for Brazil** (*cont'd*)

Investment in infrastructure

Spending and regulatory framework

- Continue to protect spending on the Growth Acceleration Programme (PAC) from budget cuts. Focus on completing the most worthwhile projects within PAC. Set specific rules to quantify the yearly operation and maintenance costs of existing and planned infrastructure, and incorporate them in multi-year budgets.
- Adopt comprehensive rules for social compensation of those affected by infrastructure projects.

Sectoral developments

- Water *and sanitation:* Make loans to municipalities conditional on forming consortia where this would be cost-saving.
- *Electricity:* Evaluate the state of competition in the power sector and, if needed, follow up by actions to prevent cross-subsidisation. Investigate whether there is room to open up competition in generation.
- *Telecommunications:* Review the costs and benefits of having a dual system, whereby firms are subject to different price-setting regulations and service obligations depending on the regime to which they belong.
- *Land transport:* Specify clear investment targets in road concession contracts aiming at significantly extending and improving the network over the entire life of the contract.

Social and environmental sustainability

- Expand the conditional cash transfer programme *Bolsa Familia*.
- Increase opportunities for technical education and labour training unconditional on successful graduation from the regular academically oriented curriculum.
- Continue efforts to slow down deforestation rates and resist changes to the Forest Code. Ensure that investment decisions appropriately account for environment-related externalities in project selection within PAC.

Bibliography

Abrahão de Castro, J., L. Modesto (2010), *Bolsa Família 2003-2010: Avanços e Desafios*, Chapter 2, IPEA, Brasília.

Afonso, J., E. Amorim Araújo and G. Biasoto Júnior (2005), "Fiscal Space and Public Sector Investments in Infrastructure: A Brazilian Case-Study", *IPEA Texto para Discussão*, No. 1141, IPEA, Rio de Janeiro.

Arnold, J. and B. Javorcik (2009), "Gifted Kids or Pushy Parents? Foreign Acquisitions and Plant Productivity in Indonesia", *Journal of International Economics*, Vol. 79, pp. 42-53.

Arnold, J., B. Brys, C. Heady, A. Johansson and C. Schwellnus (2011), "Tax Policy for Economic Recovery and Growth", *Economic Journal*, Vol. 121, pp. F59–F80.

Arnold, J., B. Javorcik and A. Mattoo (2011), "Does Services Liberalization Benefit Manufacturing Firms?", *Journal of International Economics*, Vol. 85, pp. 136-146.

Barros, B., M. de Carvalho, S. Franco and R. Mendonça (2010), "Markets, the State and the Dynamics of Inequality: Brazil's case study", in: L. López-Calva and N. Lustig (eds.), *Declining Inequality in Latin America: a Decade of Progress?,* Brookings Institution, Washington, D.C.

Calderón, C. and L. Servén (2010), "Infrastructure in Latin America", *World Bank Policy Research Working Paper*, No. 5317, May, Washington, D.C.

© OECD 2011

Cardoso, E. (2003), "Implicit and Explicit Taxation of Financial Intermediaries in Brazil: The Effect of Reserve Requirements on Bank Spreads", in P. Honohan (ed.), *Taxation of Financial Intermediation: Theory and Practice for Emerging Economies*, Oxford University Press, New York.

Debelle, G. (1997), "Inflation Targeting in Practice", *IMF Working Paper*, WP/97/35.

Furceri, D., S. Guichard and E. Rusticelli (2011), "The Role of Structural and Financial Policies in Shaping International Investment Positions", *OECD Economics Department Working Paper*, No. 863, Paris.

FUNDAP (2011), *Boletim de economia*, No. 4, São Paulo, Brazil.

IMF (2010), *Global Financial Stability Report*, Chapter 4, April.

IPEA (2010), *Infraestrutura e Econômia no Brasil: Diagnósticos e Perspectivas para 2025*, Book 6, Volume 1.

Jeanne, O. and A. Korinek (2010), "Excessive Volatility in Capital Flows: A Pigouvian Taxation Approach", *NBER Working Paper*, No. 15927, Cambridge.

Keller, W. and S. Yeaple (2009), "Multinational Enterprise, International Trade and Productivity Growth: Firm-Level Evidence from the United States", The Review of Economics and Statistics, Vol. 91, No. 4, pp. 821-831.

Kose, M., E. Prasad, K. Rogoff and S.-J. Wei (2009), "Financial Globalisation: A Reappraisal", *IMF Staff Papers*, Vol. 56, No. 1, pp. 8-62.

Mesquita, M. and M. Toros (2010), "Brazil and the 2008 Panic", *BIS Papers*, No. 54, Bank for International Settlements, Basel.

Montoro, C. and R. Moreno (2011), "The Use of Reserve Requirements as a Policy Instrument in Latin America", *BIS Quarterly*, March, Basel.

Morgan Stanley (2010), "Brazil Infrastructure: Paving the Way", *Morgan Stanley Blue Paper*, May.

OECD (2009), *Economic Surveys: Brazil*, OECD Publishing, Paris.

OECD (2011), *Going for Growth*, OECD Publishing, Paris.

Souza Rodrigues, E.A. and T. Takeda (2005), "Reserve Requirements and Bank Interest Rate Distribution in Brazil", CEMLA, Mexico.

Vujanovic, P. (2011), "An Analysis of Demand for Foreign Exchange Reserves", *OECD Economics Department Working Paper*, No. 866, Paris.

© OECD 2011

Annex A1

Progress in structural reform

This Annex reviews progress in the area of structural reform based on the policy recommendations made in previous *Surveys*. Recommendations that are new are listed in the relevant chapter.

Survey recommendations	Action taken
FISCAL POLICY FRAMEWORK	
Re-introduce a nominal ceiling for expenditure growth in the federal budget.	No overall expenditure ceiling planned. A 2.5% per year ceiling for payrolls in the public sector is currently being discussed in Congress.
Gradually eliminate revenue-earmarking requirements and aggregate spending floors.	No action taken.
Set a desired level of public indebtedness and the corresponding budget balance targets in relation to GDP to be pursued over the longer term.	No action taken.
Re-define the fiscal target in terms of the *headline* rather than primary budget balance.	The President vetoed a proposal to move from a primary to a headline target in August 2011.
MONETARY POLICY FRAMEWORK	
Consider the option of lowering the central target, possibly around a narrower tolerance band.	No action taken.
PUBLIC DEBT MANAGEMENT	
Continue to reduce external public indebtedness.	Due to rising foreign reserves, Brazil has become a net external creditor and the currency risk of the public debt has been eliminated.
FINANCIAL SECTOR REFORM	
Continue to gradually eliminate the remaining compulsory reserve holding requirements, possibly starting with the "additional requirements" on sight and time deposits, and savings accounts.	Compulsory reserve requirements were raised, not decreased, in December 2010 and in July 2011.
Gradually ease existing directed credit requirements with a view to their eventual elimination.	The volume of the directed lending scheme to the rural sector has come down over the last 2 years, while the one to the housing sector has expanded. Directed credit by BNDES has increased markedly in 2009 and 2010 but has been scaled back slightly since then.
Assess the cost-effectiveness of government spending through BNDES financing to enterprises.	No action taken.
Foster the development of hedge instruments for investment in long-dated securities.	The government has enacted a reform package to foster the development of long-term capital markets (see Chapter 2 of this *Survey*).

Survey recommendations	Action taken
TAX REFORM	
Make the rates and bases of the state-level VAT (ICMS) uniform across the states.	A proposal to unify and lower ICMS rates to 4% was discussed by State Finance Ministers in July 2011.
Shift all ICMS collection to destination, rather than allowing taxation at 2% at origin.	No action taken, but this point would be solved by unified ICMS rates (see point above).
Reduce the threshold eligibility for SIMPLES.	The threshold has been raised from BRL 2.4 million to BRL 3.6 million.
Move forward with tax reform on the basis of the government's draft legislation as submitted to Congress in Feburary 2008.	Beyond the items mentioned above, there has been no action taken on the remaining measures contained in the government's proposal, including the merger of three federal contributions into a federal VAT and merging the two corporate taxes CSLL and IRP.
Conduct regular impact assessments of the existing tax instruments, including those related to the Manaus Free Trade Zone; exempt the capital gains from the sale of venture company shares from income taxation.	No action taken.
PENSION REFORM	
Introduce additional changes to the pension system: sever the link between pension benefits and the minimum wage, introduce minimum age provisions in the private-sector regime (RGPS) for retirement on the basis of length of contribution, and create complementary pension funds for civil servants.	No action taken.
MANAGING OIL RESOURCES	
Clarify quickly the new regulatory regime for development of the new oil and gas fields in the pre-salt areas, including the role of the sector regulator in the new legal framework.	A new legal framework is being progressively introduced to govern oil reserves in the pre-salt area.
Introduce a mechanism for sharing the revenue from the new offshore oil and gas reserves among the different levels of government.	New legislation aims to share oil windfalls with all states and municipalities, including those that have no involvement in the oil industry.
Introduce a new mechanism for allocating the revenue associated with the new oil fields to ensure that it is saved and/or spent on investment programmes that would generate returns for future generations.	The government set up a "social fund" (*Fundo Social do Pre Sal*) in December 2010, in which some of oil revenues are to be saved.
ENHANCING GOVERNMENT EFFICIENCY	
Introduce greater conditionality in discretionary federal transfers to lower levels of government, as well as rewards for performance.	No action taken.
Make greater use of municipal consortia for management and service delivery.	Nine consortia have been created in the area of public sanitation. However, incentives for municipalities to form consortia remain weak.

Survey recommendations	Action taken
EDUCATION AND TRAINING	
Focus efforts to improve the quality of educational services in primary and secondary education.	Incentives for good performance have been created at the local level, coupled with a uniform benchmarking mechanism across educational institutions that has allowed measuring student attainments and school performance. Some Brazilian states and municipalities have started paying a teacher bonus related to school performance.
Make curricula more attuned to market demands; update libraries and increase the availability of computers; increase the supply of shorter, more practically-oriented post-secondary education programmes.	The PRONATEC initiative, launched in April 2011, facilitates the access to technical schools.
Improve access to childcare and pre-school education.	Pre-school education has been included in FUNDEB, the mechanism for financing sub-national provision of education. As of 2009, pre-school education covers ages 3-5 while it previously covered ages 4-6.
Move gradually from part- to full-time schooling.	FUNDEP has provided funding incentives for states and municipalities to offer full-time schooling, and a number of municipalities are implementing full-time curricula.
INNOVATION POLICIES	
Conduct regular impact assessments of the existing instruments for direct government support of innovation activities; focus sectoral-fund support on horizontal projects with counterpart financing from businesses; introduce alternative support instruments, such as risk-sharing, matching grants and loan subsidisation, which may be more applicable to start-ups; improve contestability in the allocation of sectoral-fund support by reducing emphasis on regional and sectoral earmarking.	No action taken.
Promote co-operation between federal and the state-level S&T and innovation promotion agencies to strengthen the national innovation system; assign CGEE a clear advisory role in long-term planning.	No action taken.
Reduce domestic tax burden on capital and ICT goods to improve the conditions for innovation; gradually eliminate import tariffs on capital goods and intermediate inputs.	The federal tax burden (IPI) was reduced on low-emission motor vehicles in 2011 and on domestically-produced tablet computers. Import duties were reduced for selected capital goods in mid-2010 and in early 2011.
LABOUR MARKET POLICIES	
Reduce social security contributions for low-paid workers to tackle labour market informality.	A simplified social security plan was introduced to lower social security contributions for the self-employed. This measure has formalised the work situation of over 1 million people since February 2010.
Raise the rate of return on FGTS balances.	No action taken.
Gradually phase out the severance indemnity in the event of unfair dismissal.	No action taken.

© OECD 2011

Chapter summaries

Chapter 1. Refining macroeconomic policies to sustain growth

The macro-policy framework, established in the late 1990s and based on inflation targeting, a flexible exchange rate and rules-based fiscal policy, has worked well. Inflation, public debt and vulnerability to exchange-rate risks have come down markedly, and Brazil had the fiscal space to use counter-cyclical measures to cushion the 2008-09 downturn. Looking forward, sound stabilisation policies will help the country to achieve strong economic performance in a new environment in which population will age at a rapid pace, heavy reliance on oil resources will increase revenue volatility and uncertainties regarding the external environment are higher, possibly permanently.

More specifically, the country needs to pursue fiscal consolidation and remove existing rigidities in the budget process. Over the medium term, moving to a headline budget target would ensure long-term sustainability of public (including social security) accounts, and introducing an expenditure ceiling and removing widespread revenue earmarking would help restrain expenditure. Adopting the proposals to simplify the tax system currently under discussion would improve the business environment, and the government should persevere in its effort to secure political support for them from the states. A pressing challenge is to adapt current transfer mechanisms to ensure regional and inter-generational equity in sharing oil revenues. The establishment of the social fund, which is designed to save part of the oil windfalls and whose investment returns will be allocated to social spending, could help these equity objectives to be reached, so long as it is well designed.

The ongoing surge in capital inflows complicates the task of monetary policy and should be addressed through a range of policies, in which fiscal consolidation features prominently. Additional measures such as macro-prudential policies or a temporary tax on short-term capital inflows could also help to prevent the formation of asset price bubbles.

Chapter 2. Raising saving and investment

Low investment rates are limiting Brazil's future potential growth rate. At the same time, its saving rate is also well below international averages, and a shortage of domestic saving appears to be a major barrier to higher investment rates.

Public-sector saving is negative due to high levels of expenditures, in particular pension entitlements. In addition to being costly, the pension system redistributes income to individuals with relatively low saving propensities, thereby reducing private saving as well. In order to control pension expenses in the future, useful parametric pension system reforms would include introducing a general minimum retirement age, raising the earliest possible retirement age, strengthening the penalties for early retirement and replacing the indexation of minimum pension benefits to the minimum wage by a more moderate adjustment.

Major curbs on investment include the high level of real interest rates, whose reasons are not easy to pin down. Explanations may include history and macroeconomic fundamentals, such as the downward rigidity of public current expenditures and weak creditor protection. Lending rates are raised further by interest margins that far exceed international levels. These high margins are due to a combination of high interest rates, high reserve requirements and important directed lending obligations, all of which are driving up the costs of financial intermediation. At the same time, public ownership of major financial institutions reduces market pressures for cost minimisation. Investment is also hampered by thin long-term credit markets. Due to the inability of commercial banks to provide

© OECD 2011

investment financing with long maturities, the national development bank BNDES is currently the only sizeable supplier of such funding. BNDES is unlikely to be able to finance the country's investment needs, so that engaging commercial lenders in the provision of long-term funding will be necessary. Another factor limiting investment is the fragmented tax system, which raises firms' compliance costs and adds to an already high tax burden. Finally, regulatory reforms, including the removal of remaining entry restrictions as well as reductions in tariff protection, may reduce firms' costs and enhance investment incentives.

Chapter 3. Promoting infrastructure development

Brazil under-invested in infrastructure for over three decades, and infrastructure investment rates have come up only slowly since 2007. Infrastructure needs are sizeable in almost all sectors. It is likely that at its current stage of development the country will benefit from large pay-offs from infrastructure spending. Against this background, the Brazilian authorities have put in place a large infrastructure plan named Growth Acceleration Programme (Programa de aceleração do crescimento, PAC). This programme has been rightly protected from the fiscal cuts announced earlier this year. Nevertheless some changes to the policy and regulatory framework could be introduced to make public investment more cost-efficient and to foster private participation. In particular:

- *The second stage of PAC needs to focus on completing the most worthwhile programmes. In addition, the public-private partnership framework should be streamlined.*
- *In most areas, the regulatory framework is working well, but sectors are at different stages of development. Despite important institutional changes in recent years, policy capture is sometimes still influencing some federal and many state regulatory agency decisions.*
- *In spite of some recent progress, frequent disputes appear to delay some infrastructure projects, in particular in the energy sector. The main challenge in this area is to hasten the licensing process, while continuing to put appropriate emphasis on environmental and social protection.*
- *Reforms have been implemented in individual network industries, but there is still some room to inject competition in fixed-line telecommunications and to prevent product cross-subsidisation in the electricity sector. Concession contracts in both roads and rail could be refined to foster private investment in maintenance and network expansion. In water and sanitation, where investments are the most needed, smaller municipalities should be encouraged to invest and form consortia to reap economies of scale.*

Chapter 4. Achieving strong and sustainable growth

Over the past decade Brazil has managed to achieve economic stability, and more recently its economy proved very resilient in response to the global economic crisis. The key challenge for the country is now to continue to grow at a fast pace to close its income gap with the OECD countries, while choosing a development pattern that is consistent with long-term sustainability concerns both socially – in terms of ensuring all Brazilians benefits from gains in living standards – and in terms of protecting the environment.

Brazil will experience major changes in the decades to come, which will have implications for the design of policy. Like many other emerging-market economies, the country is going to age much more rapidly than today's advanced economies. As a result, long-term output growth is expected to slow in line with a deceleration in the working-age population. The effect of this ageing process on saving will depend on a range of factors, including the effectiveness of social policies. In addition to increasing the burden on public finances, ageing will also tilt the composition of public expenditure toward more pension and health spending. The country is also going to rely increasingly on oil resources. Oil production has steadily increased since 2003, but production from the pre-salt fields will move the country into the top ten oil exporters in the world. While net foreign assets and rising oil production

appear to have pushed up the equilibrium exchange rate and the country has benefited from sizeable terms-of-trade gains, there are very few signs of de-industrialisation thus far.

Income redistribution and education policies as well as environmental policies are key areas where reforms will help to maintain economic development on a path of long-term sustainability. Poverty and inequality reduction is probably the area where Brazil has made the most significant progress in the last decade, owing in large part to Bolsa Familia, a targeted conditional cash transfer programme, whose resources should be increased. Brazil should continue with the main pillars of its recent success in the area of education, but a stronger focus on teaching quality and on reducing drop-out rates in secondary education would speed up the pace at which it can catch up with educational attainment in OECD countries.

Cutting greenhouse-gas emissions is a policy priority, and the country has managed to slow the pace of deforestation dramatically in recent years. As a result, it will achieve its emission reduction targets ahead of the 2014 deadline. Given the importance of deforestation in climate-change policies, the authorities should persevere with their efforts. In addition, they should pay particular attention to the greening of infrastructure investment and account for this in project selection within the Growth Acceleration Programme.

© OECD 2011

This Survey was prepared in the Economics Department by Annabelle Mourougane, Jens Arnold and Mauro Pisu under the supervision of Peter Jarrett.

Research assistance was provided by Anne Legendre and secretarial assistance by Mee-Lan Frank.

This Survey was discussed at a meeting of the Economic and Development Review Committee on 6 September 2011.

The Survey is published on the responsibility of the Secretary-General of the OECD.

Further information

For further information regarding this overview, please *contact*:

Peter Jarrett, e-mail: peter.jarrett@oecd.org;
tel.: +33 1 45 24 86 97; or
Annabelle Mourougane, e-mail: annabelle.mourougane@oecd.org;
tel.: +33 1 45 24 76 81; or
Jens Arnold, e-mail: jens.arnold@oecd.org;
tel.: +33 1 45 24 87 22.

See also *http://www.oecd.org/eco/surveys/Brazil*.

How to obtain this book

This *Survey* can be purchased from our online bookshop:
www.oecd.org/bookshop.
OECD publications and statistical databases are also available via our online library: *www.oecdilibrary.org*.

Related reading

OECD Economic Surveys: *OECD Economic Surveys* review the economies of member countries and, from time to time, selected non-members. Approximately 18 Surveys are published each year. They are available individually or by subscription. For more information, consult the Periodicals section of the OECD online Bookshop at *www.oecd.org/bookshop*.
OECD Economic Outlook: More information about this publication can be found on the OECD's website at
www.oecd.org/eco/Economic_Outlook.
Economic Policy Reforms: Going for Growth: More information about this publication can be found on the OECD's website at
www.oecd.org/economics/goingforgrowth.
Additional Information: More information about the work of the OECD Economics Department, including information about other publications, data products and Working Papers available for downloading, can be found on the Department's website at
www.oecd.org/eco.
Economics Department Working Papers:
www.oecd.org/eco/workingpapers
OECD work on Brazil: *www.oecd.org/Brazil*